WHAT IS CLAIMED IS:

1. An imaging system configured to compensate for one or more individual defective pixels in an array of pixel elements, the system comprising:

an array of pixel sensor elements;

a readout controller coupled to the array, the readout controller configured to read a block of pixels within the array, the block including a center pixel, the controller further configured to generate pixel addresses of at least three subsets of pixels within the block; and

a bad pixel detection and correction unit configured to determine a subset with a minimum variance, calculate a median of each subset, determine whether a value of the center pixel exceeds the medians of the subsets, and to replace the value of the center pixel with the median of the subset with the minimum variance if the value of the center pixel exceeds the medians of the subsets.

2. The imaging system as defined in Claim 1, wherein the array comprises a monochrome array.

3. The imaging system as defined in Claim 1, wherein the system further comprises a color filter deposited on the array.

4. The imaging system as defined in Claim 1, wherein the subsets comprise a horizontal row and two diagonal patterns.

5. The imaging system as defined in Claim 1, wherein the subsets comprise a vertical row and two diagonal patterns.

6. A method of correcting one or more individual defective pixels in an array of pixel elements, the method comprising:

reading a pixel block of an array of pixel sensor elements, the pixel block including an interior pixel;

selecting at least a first subset, a second subset and a third subset of pixels within the pixel block, the first subset comprising pixels arranges in a first diagonal pattern within the block, the second subset arranged in a second diagonal pattern within the block, the third subset arranged in a non-diagonal pattern;

calculating a variance between a highest and a lowest pixel sensor value within each subset;

identifying a subset with the least variance;

calculating a first value based on at least one of a median, average, and mean pixel sensor value for the corresponding three subsets;

determining whether a value for the interior pixel varies from the first value by more than a first amount; and

replacing the value for the interior pixel with a replacement value based on the pixel sensor values of the subset with the lowest variance if the value for the interior pixel varies from the first value by more than a first amount.

7. The method of Claim 6, further comprising:

selecting a fourth subset arranged in another non-diagonal pattern; and

calculating a variance between a highest and a lowest pixel sensor value within the fourth subset.

8. The method of Claim 6, wherein the non-diagonal pattern is horizontal.

9. The method of Claim 6, wherein the non-diagonal pattern is vertical.

10. The method of Claim 6, wherein the act of reading a pixel block comprises reading a 3 x 3 pixel block.

11. The method of Claim 6, wherein the act of reading a pixel block comprises reading a 5 x 5 pixel block.

12. A method of detecting a defective pixel element within an array of pixel elements in an imaging device while the imaging device is in use by an end-user, the method comprising:

capturing an image taken by the end-user using the imaging device;

for the captured image, comparing a first pixel element value with a second value related to at least element values of other imaging pixel elements in a first group;

determining from the comparison if the first pixel element value is in error; and

substituting a third value related to the value of at least one of the other pixels elements at least partly in response to determining the first pixel element value is error.

13. The method as defined in Claim 12, wherein the comparison act includes comparing the value of the first pixel element with the median value of the first group of pixels.

14. The method as defined in Claim 12, wherein the first group include at least two pixel elements adjacent to the first pixel element.

15. The method as defined in Claim 12, wherein the second value is also related to the first pixel element value.

16. The method as defined in Claim 12, wherein the third value is related to the median value of at least two other pixel values.

17. The method as defined in Claim 12, wherein the imaging device is a color imaging device, and the other pixels whose values are compared to the first pixel value are intended to sense the same color as the first pixel element.

18. The method as defined in Claim 12, wherein the imaging device is a monochrome imaging device.

19. An imaging system configured to compensate for one or more individual defective pixels in an imaging array, the system comprising:

a readout controller coupled to the imaging array, the readout controller configured to read a group of pixels within the array;

a defective pixel detection circuit configured to determine when at least a first pixel value associated with a first pixel within the group of pixels varies from a second value related to at least one other pixel within the group of pixels by a first amount; and

a pixel compensation circuit configured to replace the value of the first pixel with a third value related to at least one other pixel within the group of pixels when the first pixel value varies by more than the first amount from the second value.

20. The imaging system as defined in Claim 19, wherein the second value is a median value of a plurality pixel values of pixels within the group of pixels.

21. The imaging system as defined in Claim 19, wherein the second value is an average value of a plurality pixel values of pixels within the group of pixels.

22. The imaging system as defined in Claim 19, wherein the third value is related to the median value of a plurality pixel values of pixels within the group of pixels.

23. The imaging system as defined in Claim 19, further comprising a color filter overlaying at least a portion of the array.

24. The imaging system as defined in Claim 19, wherein the array is a CMOS array.

25. The imaging system as defined in Claim 19, wherein the array is a CCD array.

26. A camera system, comprising:

an imager, including a plurality of pixels;

a lens overlaying at least a portion of the imager;

a readout circuit coupled to the imager, the readout circuit configured to read imager pixel values;

a defective pixel detection circuit configured to determine if a first pixel is defective by examining the pixel values of a plurality of pixels readout by the readout circuit;

a pixel compensation circuit configured to substitute the value of the first pixel with a value related to at least one other pixel value readout by the readout circuit; and

a power supply used to power the readout controller, the defective pixel detection circuit, and the pixel compensation circuit.

27. The camera system as defined in Claim 26, wherein the camera system is a video camera.

28. The camera system as defined in Claim 26, further comprising an NTSC encoder coupled to the readout circuit.

29. The camera system as defined in Claim 26, wherein the camera system is located on a phone.

30. The camera system as defined in Claim 26, further comprising a color filter positioned over at least a portion of the imager.

31. A method of detecting a defective pixel element within pixel elements in an imaging device using an image captured by the end-user, the method comprising:

for the captured image, comparing a first pixel element value with a second value related to at least element values of pixel elements in a two dimensional neighborhood;

determining from the comparison if the first pixel element value is in error; and

substituting the first pixel element value with a third value related to a value of at least one of the other pixels elements in the two dimensional neighborhood.

32. The method as defined in Claim 31, wherein the second value is related to at least two element values corresponding to at least two pixels on opposite sides of the first pixel element.

33. The method as defined in Claim 31, wherein the comparison includes determining if the first pixel element value varies from the second value by more than a threshold amount.

34. An imaging system comprising:

an imager including a plurality of pixel sensor elements;

a controller coupled to the imager, the controller configured to read pixel sensor element values;

a defective pixel detection circuit configured to determine when at least a first pixel value associated with a first pixel sensor element within a two dimensional neighborhood is in error by comparing the at least first pixel value to a second value related to at least one other pixel element within the two dimensional neighborhood; and

a pixel compensation circuit configured to replace the value of the first pixel element with a third value related to at least one other pixel element within the two dimensional neighborhood.